CLAIM AMENDMENTS

Please amend the claims to read as provided in the following claim listing:

1.-62. (Canceled)

63. (New) A method for steering a downhole drilling apparatus, the method comprising:

inducing a first electromagnetic wave in a formation using a first transmitter antenna oriented at a first angle relative to a tool axis;

determining a first differential signal based on responses to the first electromagnetic wave by a first receiver antenna and a second receiver antenna, the receiver antennas each being oriented relative to the tool axis at an angle different than the first angle;

inducing a second electromagnetic in said formation using a second transmitter antenna;

determining a second differential signal based on responses to the second electromagnetic wave by the first and second receiver antennas;

obtaining a output signal from the first and second differential signals, wherein the output signal comprises a difference of said first and second differential signals or a ratio of said first and second differential signals; and

adjusting a drilling direction of said drilling apparatus based at least in part on said output signal.

64. (New) The method of claim 63 wherein:

said first differential signal comprises the phase difference between said first and second response signals; and

said second differential signal comprises the phase difference between said third and fourth response signals.

65. (New) The method of claim 63 wherein:

said first differential signal comprises the amplitude ratio of said first and second response signals; and

said second differential signal comprises the amplitude ratio of said third and fourth response signals.

66. (New) The method of claim 63 wherein:

said first differential signal comprises a phase shift resistivity value based on the phase difference between said first and second response signals; and

said second differential signal comprises a phase shift resistivity value based on the phase difference between said third and fourth response signals.

67. (New) The method of claim 63 wherein:

said first differential signal comprises an amplitude attenuation resistivity value based on the amplitude ratio of said first and second response signals; and

said second differential signal comprises an amplitude attenuation resistivity value based on the amplitude ratio of said third and fourth response signals.

68. (New) The method of claim 63 wherein said output signal comprises the difference of said first and second differential signals.

69. (New) The method of claim 63, wherein said output signal comprises the ratio of said first and second differential signals.

70. (New) A tool for steering a downhole drilling apparatus, the tool comprising:

a first transmitter antenna oriented at a first angle relative to a tool axis to transmit a first electromagnetic signal into a surrounding formation;

a second transmitter antenna spaced apart from said first transmitter antenna along the tool axis to transmit a second electromagnetic signal into the surrounding formation;

a first receiver antenna oriented at a second angle relative to said tool axis, said second angle being different from said first angle;

a second receiver antenna spaced apart from said first receiver antenna along said tool axis; and

a processor in communication with said first and second receiver antennas to determine a first differential signal response to the first electromagnetic signal and a second differential signal

response to the second electromagnetic signal, wherein the processor determines an output signal from the first and second differential signals for use in steering the downhole drilling apparatus.

71. (New) The tool of claim 70 wherein:

said first differential signal comprises the phase difference between response signals of the first and second receiver antennas; and

said second differential signal also comprises the phase difference between response signals of the first and second receiver antennas.

72. (New) The tool of claim 70 wherein:

said first differential signal comprises the amplitude ratio between response signals of the first and second receiver antennas; and

said second differential signal comprises the amplitude ratio between response signals of the first and second receiver antennas.

73. (New) The tool of claim 70 wherein:

said first differential signal comprises a phase shift resistivity value based on the phase difference between response signals of the first and second receiver antennas; and

said second differential signal comprises a phase shift resistivity value based on the phase difference between response signals of the first and second receiver antennas.

74. (New) The tool of claim 70 wherein:

said first differential signal comprises an amplitude attenuation resistivity value based on the amplitude ratio between response signals of the first and second receiver antennas; and

said second differential signal comprises an amplitude attenuation resistivity value based on the amplitude ratio between response signals of the first and second receiver antennas.

75. (New) The tool of claim 70 wherein said output signal comprises the difference of said first and second differential signals.

76. (New) The tool of claim 70, wherein said output signal comprises the ratio of said first and second differential signals.